II. <u>Amendments to the Specification</u>

Please replace paragraph [0021] with the following amended paragraph:

[0021]   The model for vertically oriented sensors is

$$A_{z,meas} = -g + \ddot{\theta}_v d_{yraRA} \tag{8}$$

$$\underline{A_{z,meas} = -g + \ddot{\theta}_v d_{ytoRA}} \tag{8}$$

Hence, from Equations (2) and (5)

$$a_{z,body} = -g + \left[a_{41}\dot{y}_v + a_{42}r_v + a_{43}\theta_v + a_{44}\dot{\theta}_v + \frac{C_F}{m}\delta \right] d_{ytoRA}$$

$$= \left[a_{41}d_{ytoRA} \right]\dot{y}_v$$

$$+ \left[a_{42}d_{ytoRA} \right]r_v$$

$$+ \left[a_{43}d_{ytoRA} \right]\theta_v \tag{9}$$

$$+ \left[a_{44}d_{ytoRA} \right]\dot{\theta}_v$$

$$+ \left[\frac{C_F}{m}d_{ytoRA} \right]\delta$$

$$+ \left[-g \right]$$

where d_{ytoRA} is the distance along the y axis to the roll axis.